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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,957	03/16/2001	Hisao Hayashi	SON-2050	5303

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EXAMINER
LEWIS, MONICA

ART UNIT	PAPER NUMBER
2822	

DATE MAILED: 08/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/808,957	HAYASHI, HISAO	
	Examiner	Art Unit	
	Monica Lewis	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This office action is in response to the application filed March 16, 2001.

Priority

2. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)).

Information Disclosure Statement

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 13-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is meant by the following: a) "joining an opposed substrate

previously formed with opposing electrodes joined to the product substrate" (See Claim 16); b) "manufacturing substrate" (See Claims 13, 14, 16, 17, 19 and 20); c) "product substrate" (See Claims 13-21); d) "forming at least a thin film transistor to the surface of the product substrate in a state reinforced with the manufacturing substrate" (See Claim 13).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 13-21, as far as understood, are rejected under 35 U.S.C. 103(a) as obvious over Yoshinaga et al. (U.S. Patent No. 5,475,515).

In regards to claim 13, Yoshinaga et al. ("Yoshinaga") discloses the following:

a) manufacturing substrate (101a) having a characteristic capable of enduring a process for forming a thin film transistor and a product substrate (101) having a characteristic suitable to direct mounting of the thin film transistor, bonding the manufacturing substrate to the product substrate for supporting the product substrate at the back, forming at least a thin film transistor to the surface of the product substrate in a state reinforced with the manufacturing substrate (See Figure 1A and Figure 2B).

In regards to claim 13, Yoshinaga fails to disclose the following:

a) separating the manufacturing substrate after use from the product substrate.

However, the limitation of "separating the manufacturing substrate after use from the product substrate" makes it a product by process claim. The MPEP § 2113, states, "Even though product -by[-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on

its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

A *"product by process"* claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972): *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); In re Fessmann, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a *"product by, all of"* claim, and not the patentability of the process, and that an old or obvious product, whether claimed in *"product by process"* claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear.

In regards to claims 14, 17 and 20, Yoshinaga discloses the following:

a) a manufacturing substrate made of an inorganic material and a product substrate made of an organic material are used (See Column 5 Lines 12 and 13).

In regards to claims 15 and 18, Yoshinaga discloses the following:

a) a moisture proof film is formed on the surface of the product substrate made of an organic material and then a thin film transistor is formed thereon (See Column 17 Lines 63-67).

In regards to claim 16, Yoshinaga discloses the following:

a) a manufacturing substrate having a characteristic capable of enduring the process for forming a thin film transistor and a product substrate having a characteristic suitable to direct mounting of the thin film transistor, bonding the manufacturing substrate to the product substrate for supporting the product substrate at the back, forming a thin film transistor and a pixel electrode (102) on the surface of the product substrate in a state reinforced with the manufacturing substrate, joining an opposed substrate previously formed with opposing electrodes joined to the product substrate formed with the pixel electrode at a predetermined gap (See Figure 1A and Figure 2B).

In regards to claim 16, Yoshinaga fails to disclose the following:

a) possessing liquid crystals in the gap and separating the manufacturing substrate after use from the product substrate.

However, the limitation of "possessing liquid crystals in the gap and separating the manufacturing substrate after use from the product substrate" makes it a product by process claim. The MPEP § 2113, states, "Even though product -by[-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

A *"product by process"* claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972): *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); In re Fessmann, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a *"product by, all of"* claim, and not the patentability of the process, and that an old or obvious product, whether claimed in *"product by process"* claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear.

In regards to claim 19, Yoshinaga discloses the following:

a) a manufacturing substrate having a characteristic capable of enduring the process for forming a thin film transistor and a product substrate having a characteristic suitable to direct mounting of the thin film transistor, bonding the manufacturing substrate to the product substrate supporting the product substrate at the back, forming a thin film transistor and a electroluminescence display device on the surface of the product substrate in a state reinforced with the manufacturing substrate (See Figure 1A and Figure 2B).

In regards to claim 19, Yoshinaga fails to disclose the following:

a) separating the manufacturing substrate after use from the product substrate.

However, the limitation of "separating the manufacturing substrate after use from the product substrate" makes it a product by process claim. The MPEP § 2113, states, "Even though product -by[-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

A *"product by process"* claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972): *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); In re Fessmann, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a *"product by, all of"* claim, and not the patentability of the process, and that an old or obvious product, whether claimed in *"product by process"* claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear.

In regards to claim 21, Yoshinaga discloses the following:

a) a moisture proof film is formed on the surface of the product substrate made of an organic material and then a thin film transistor and an electroluminescence display device is formed thereon (See Figure 1A and Column 17 Lines 63-67).

Conclusion

9. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure: a) Leventis et al. (U.S. Patent No. 5,189,549) discloses a electrochromic display; b) Hayashi et al. (U.S. Patent No. 5,208,690) discloses a liquid crystal display having pixels with switching transistors; c) Yoshinaga et al. (U.S. Patent No. 5,384,069) discloses a polymeric liquid crystal composition; d) Curran (U.S. Patent No. 5,476,810) discloses a manufacture of electronic devices comprising thin film circuits; e) Yoshinaga et al. (U.S. Patent No. 5,540,858) discloses a display method and apparatus using choral liquid crystal; f) Ukiah et al. (U.S. Patent No. 5,940,154) discloses a reflection type liquid crystal display); g) Gu (U.S. Patent No. 6,157,426) discloses a liquid crystal with a multiplayer black matrix; h) Ota et al. (U.S. Patent No. 6,198,464) discloses an active matrix type liquid crystal display system; and i) Noda et al. (U.S. Patent No. 5,585,951) discloses an active matrix substrate.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 703-305-3743. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, Jr. can be reached on 703-308-4940. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722 for regular and after final

communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

ML

August 7, 2002

CARL WHITEHEAD, JR.
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